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REMARKS

This response is intended as a full and complete response to the non-final Office Action mailed August 26, 2004. In the Office Action, the Examiner noted that claims 1-27 are pending in the application, and that claims 1-27 are rejected under 35 U.S.C. §103.

By this response, claims 1-27 continue unamended. In view of the following discussion, the Applicants submit that the claims pending in the application are believed to be non-obvious under 35 U.S.C. §103. Thus, the Applicants believe that the application is in condition for allowance.

PRIORITY CLAIM

Applicants respectfully note that Applicants' have not claimed priority pursuant to 35 U.S.C. §119, and no certified copies of priority documents have been provided. Rather, Applicants have claimed the benefit of United States provisional patent application Serial No. 60/170,138, filed on December 10, 12999.

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REJECTION OF CLAIMS UNDER 35 U.S.C. §103(a)

Claims 1-27

The Examiner has rejected claims 1-27 under 35 U.S.C. §103(a) as being unpatentable over Craig (U.S. Patent 5,790,176, hereinafter "Craig") and Bolosky et al. (U.S. Patent 5,699,503, hereinafter "Bolosky"). The rejection is respectfully traversed.

> The Applicants' independent claims 1 recites (independent claims 13, 15 and 21 recite similar limitations):
>
> "Apparatus, comprising:
>   a primary storage module, for storing an initial portion of each of a plurality of titles;
>   a secondary storage module, for storing at least a remaining portion of at least one of said plurality of titles; and
>   a controller, for processing user requests and causing said primary storage module to begin providing an output stream including an initial portion of a requested title;
>   said secondary storage module provisioning said primary storage module with a remaining portion of said requested title such that said output stream includes said initial portion and said remaining portion of said requested title."

The test under 35 U.S.C. §103 is not whether an improvement or a use set forth in a patent would have been obvious or non-obvious; rather the test is whether the claimed invention, <u>considered as a whole,</u> would have been obvious. <u>Jones v. Hardy,</u> 110 USPQ 1021, 1024 (Fed. Cir. 1984) (emphasis added). Thus, it is impermissible to focus either on the "gist" or "core" of the invention, <u>Bausch & Lomb, Inc. v. Barnes-Hind/Hydrocurve, Inc.,</u> 230 USPQ 416, 420 (Fed. Cir. 1986) (emphasis added). Moreover, the invention <u>as a whole</u> is not restricted to the specific subject matter claimed, but also embraces its properties and the problem it solves. <u>In re Wright,</u> 6 USPQ 2d 1959, 1961 (Fed. Cir. 1988) (emphasis added). The combination of Craig and Bolosky fails to teach or suggest the Applicants' invention <u>as a whole.</u>

In particular, Craig discloses "allocation of storage in the Media Server is based on the ranking of a feature and the output of the trend processing performed by Usage Probability Processor 262. Referring to FIG. 4 storage is divided into several components, including DRAM 278. Magnetic Disk 282, high Speed Magnetic Tape 286

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and Archival Magnetic Tape 290. All features are stored on the appropriate media based on the priority tanking of the feature. For example, DRAM Storage 278 is used for the highest priority features as determined by the trend processing whereas Archival storage is used for the lowest priority features. Table 2 gives typical priority assignments and storage capabilities of each media. (see Craig, Col. 10, Lines 28-40).

Nowhere in the Craig reference is there any teaching or suggestion of "a primary storage module, for storing an initial portion of each of a plurality of titles." That is, the Applicant's invention takes a particular title of a plurality of titles and stores an initial portion of a selected title in a primary storage module and then a remaining portion of the same title in a secondary storage module. By contrast, the Craig reference merely discloses that DRAM storage is used for the highest 20 features and data files as determined by the trend processing. When a feature or other high priority media file is stored in DRAM it does not occupy magnetic storage space until removed from DRAM storage. In other words, the Craig reference discloses that the feature or title of information is stored on a particular type of storage device based on its probability of usage. The Applicant's invention differs from the Craig reference since the title of video content as an initial portion stored on a primary storage module and the remaining portion of the title stored on a secondary storage module.

Furthermore, Bolosky fails to bridge the substantial gap between the Craig reference and Applicants' invention. Bolosky merely discloses declustered mirroring in order to guarantee a data stream at a constant rate to a subscriber. In this context, "mirroring" refers to storing both a primary copy of a block of data and a secondary copy of a block of data where each copy of the block of data is stored on a separate storage device. The term "declustered" refers to dividing a secondary block of data into a number of subblocks where each subblock is stored on a separate storage device. Replacing the subblocks across many storage devices, when the storage device containing the primary block fails, the burden of transmitting the secondary block of data is shared among many storage devices, thereby lessening the effect of failure mode processing on each storage device. (see Bolosky, Col. 3, lines 46-60).

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Even if the two references could somehow be operably combined, the combination would merely disclose dividing a plurality of storage devices into a primary portion and a secondary portion, where the primary portion of the storage devices contains the primary blocks of data, while the secondary portions of the storage device contain the subblocks of data. As further discussed in the Bolosky reference, the video image sequences are divided into sequential blocks of data that are striped across the primary portions of the storage devices. After storing the primary blocks of data on the primary portions of the storage devices, the video image is stored onto the secondary portions of the storage devices by utilizing the clustered mirroring. (see Bolosky, Col. 6, Lines 40-60).

The Applicant's invention is different than the combined references. Specifically, the Applicant's invention utilizes a primary storage module for storing an initial portion of each of the plurality of titles and a secondary storage module for storing at least a remaining portion of at least one of the plurality of titles. In other words, a single title is divided into an initial portion that is stored at a primary storage module and a remaining portion of that title is stored on a secondary storage module. It is noted that the primary storage module and the secondary storage modules are independent from each other. By contrast, and as shown and discussed with respect to FIG. 3C of the Bolosky reference,

> FIG. 3C depicts an example of declustered mirroring of the preferred embodiment of the present invention. FIG. 3C depicts three storage devices 306, 308, 310 with each storage device having a primary portion 312, 316, 320 and a secondary portion 314, 318, 322. In this example, the video image sequences are comprised of three blocks of data, block A, block B, and block C which are stored on the primary portions 312, 316, 320 of the storage devices, respectively. In this example, the declustering number is 2 and, therefore, block A is divided into two sub-blocks with the first sub-block A1 being stored on the secondary portion 318 of storage device 308 and the second sub-block A2 being stored on the secondary portion 322 of storage device 310. Block B is divided into two sub-blocks, B1 and B2, which are stored on the secondary portions of storage devices 310, 306, respectively. Also, block C is divided into two sub-blocks, C1 and C2, which are stored on the secondary portions of storage devices 306, 308, respectively. Therefore, by striping the data on the primary portions of the storage devices and storing the sub-blocks on the secondary portions of the storage devices, if a failure occurs to storage

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device 308, storage device 310 and storage device 306 can each send sub-blocks B1 and B2 so that the data stream to the subscriber is not interrupted.
(see Bolosky, Col. 7 Lines 39-62).

Accordingly, the combination of Craig and Bolosky fail, to teach or suggest the Applicant's invention as a whole. Specifically, the combined references fail to teach or suggest "a primary storage module", for storing an initial portion of each of a plurality of titles." and "a secondary storage module, for storing at least a remaining portion of at least one of said plurality of titles."

As such, the Applicants submit that independent claims 1, 13, 15 and 21 are not obvious and fully satisfy the requirements under 35 U.S.C. §103 and are patentable thereunder. Furthermore, claims 2-12, 14, 16-20 and 22-27 depend directly or indirectly from independent claims 1, 13, 15 and 21 and recite additional features thereof. As such, and at least for the same reasons set forth above with respect to Applicants' independent claims 1, 13, 15 and 21, the Applicants submit that these claims are also non-obvious and allowable under 35 U.S.C. §103. Therefore, the Applicants respectfully request that the rejections be withdrawn.

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CONCLUSION

In view of the foregoing amendments and remarks, Applicants respectfully submit that the claims presently in this application are nonobvious under the provisions of 35 U.S.C. §103. Applicants believe that this application is in condition for allowance. Reconsideration of this application and its swift passage to issue are respectfully solicited.

If, however, the Examiner believes that there are any unresolved issues requiring adverse final action in any of the claims now pending in the application, it is requested that the Examiner telephone Eamon J. Wall or Steven M. Hertzberg at (732) 530-9404 so that appropriate arrangements can be made for resolving such issues as expeditiously as possible.

Respectfully submitted,

_11/19/04_

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